

HEARTWORM PREVENTATIVE AND INTESTINAL PARASITE TREATMENT- ivermectin, pyrantel pamoate and praziquantel tablet, chewable
Virbac AH, Inc.

Heartworm Preventative & Intestinal Parasite Treatment

Chewable Tablets
(ivermectin/pyrantel pamoate/praziquantel)

VETHICAL[®]

For oral use in dogs only.

Caution

Federal (U.S.A.) law restricts this drug to use by or on the order of a licensed veterinarian.

Description

Heartworm Preventative & Intestinal Parasite Treatment Chewable Tablets is a combination of three anthelmintics (ivermectin/pyrantel pamoate/praziquantel). The tablets are available in four sizes in color-coded packages for oral administration to dogs according to their weight (see **Dosage**).

Indications

For use in dogs to prevent canine heartworm disease by eliminating the tissue stage of heartworm larvae (*Dirofilaria immitis*) for a month (30 days) after infection and for the treatment and control of roundworms (*Toxocara canis*, *Toxascaris leonina*), hookworms (*Ancylostoma caninum*, *Uncinaria stenocephala*, *Ancylostoma braziliense*), and tapeworms (*Dipylidium caninum*, *Taenia pisiformis*).

Dosage

Heartworm Preventative & Intestinal Parasite Treatment (ivermectin/pyrantel pamoate/praziquantel) Chewable Tablets should be administered orally at monthly intervals at the recommended minimum dose level of 6 mcg of ivermectin per kilogram (2.72 mcg/lb), 5 mg of pyrantel (as pamoate salt) per kg (2.27 mg/lb) and 5 mg of praziquantel per kg (2.27 mg/lb) of body weight, as follows:

Dog Weight Lbs.	Chewable Tablet Per Month	Tablet Size	Ivermectin Content	Pyrantel Pamoate Content	Praziquantel Content
6.0 to 12	1	Toy	34 mcg	28.5 mg	28.5 mg
12.1 to 25	1	Small	68 mcg	57 mg	57 mg
25.1 to 50	1	Medium	136 mcg	114 mg	114 mg
50.1 to 100	1	Large	272 mcg	228 mg	228 mg

Heartworm Preventative & Intestinal Parasite Treatment Chewable Tablets are recommended for 8 weeks of age and older. For dogs over 100 lbs, use the appropriate of these Chewable Tablets.

Administration

Remove only one tablet at a time from the foil-backed blister card. Return the remaining tablets to their

box to protect the product from light. Heartworm Preventative & Intestinal Parasite Treatment Chewable Tablets can be offered to the dog by hand or be added intact to a small amount of dog food. Care should be taken that the dog consumes the complete dose, and the dog should be observed for a few minutes after administration to ensure that part of the dose is not lost or rejected. If it is suspected that any of the dose has been lost, redosing is recommended.

Heartworm Preventative & Intestinal Parasite Treatment Chewable Tablets should be given at monthly intervals during the period of the year when mosquitoes (vectors), potentially carrying infective heartworm larvae, are active. The initial dose must be given within a month (30 days) after the dog's first exposure to mosquitoes. The final dose must be given within a month (30 days) after the dog's last exposure to mosquitoes.

When replacing another heartworm preventive product in a heartworm disease prevention program, the first dose of Heartworm Preventative & Intestinal Parasite Treatment Chewable Tablets must be given within a month (30 days) of the last dose of the former medication. A heartworm test should be performed prior to switching heartworm preventive products.

If the interval between doses exceeds a month (30 days), the efficacy of ivermectin can be reduced. Therefore, for optimal performance, the tablet must be given once a month on or about the same day of the month. If treatment is delayed, whether by a few days or many, immediate treatment with Heartworm Preventative & Intestinal Parasite Treatment Chewable Tablets and resumption of the recommended dosing regimen will minimize the opportunity for the development of adult heartworms.

WARNING

For use in dogs only. Keep this and all drugs out of reach of children. In safety studies, testicular hypoplasia was observed in some dogs receiving 3 and 5 times the maximum recommended dose monthly for 6 months (see Animal Safety).

In case of ingestion by humans, clients should be advised to contact a physician immediately. Physicians may contact a Poison Control Center for advice concerning cases of ingestion by humans.

For a copy of the Material Safety Data Sheet (MSDS), or to report adverse reactions, call 1-866-337-5009.

Precautions

Use with caution in sick, debilitated, or underweight animals and dogs weighing less than 10 lbs (see Animal Safety). The safe use of this drug has not been evaluated in pregnant or lactating bitches.

All dogs should be tested for existing heartworm infection before starting treatment with Heartworm Preventative & Intestinal Parasite Treatment Chewable Tablets, which are not effective against adult *D. immitis*. Infected dogs should be treated to remove adult heartworms and microfilariae before initiating a heartworm prevention program.

While some microfilariae may be killed by the ivermectin in Heartworm Preventative & Intestinal Parasite Treatment Chewable Tablets at the recommended dose level, Heartworm Preventative & Intestinal Parasite Treatment Chewable Tablets are not effective for microfilariae clearance. A mild hypersensitivity-type reaction, presumably due to dead or dying microfilariae and particularly involving a transient diarrhea, has been observed in clinical trials with ivermectin alone after treatment of some dogs that have circulating microfilariae.

Adverse Reactions

Self-limiting adverse reactions including lethargy, limpness, salivation, shaking, diarrhea, decreased appetite, licking lips, and belching were reported between 20 minutes and 72 hours following treatment in a field study with Heartworm Preventative & Intestinal Parasite Treatment Chewable Tablets.

In clinical field trials with ivermectin/pyrantel pamoate, vomiting or diarrhea within 24 hours of dosing was rarely observed (1.1% of administered doses). The following adverse reactions have been reported following the use of ivermectin: depression/lethargy, vomiting, anorexia, diarrhea, mydriasis, ataxia, staggering, convulsions and hypersalivation.

Effectiveness

Heartworm Preventative & Intestinal Parasite Treatment Chewable Tablets, given orally using the recommended dose and regimen, are effective against the tissue larval stage of *D. immitis* for a month (30 days) after infection and, as a result, prevent the development of the adult stage. Heartworm Preventative & Intestinal Parasite Treatment Chewable Tablets are also effective against canine roundworms (*T. canis*, *T. leonina*), hookworms (*A. caninum*, *U. stenocephala*, *A. braziliense*), and tapeworms (*T. pisiformis*, *D. caninum*). A total of 61 dogs and puppies with naturally acquired or experimental parasite infections treated with Heartworm Preventative & Intestinal Parasite Treatment Chewable Tablets were enrolled in 7 well-controlled laboratory studies to establish effectiveness. These studies included dogs of various sizes, ages and breeds. Data from these studies demonstrated Heartworm Preventative & Intestinal Parasite Treatment Chewable Tablets are safe and effective for the removal of the parasite species indicated on the label when used as directed.

Palatability

In a field trial, Heartworm Preventative & Intestinal Parasite Treatment was shown to be a palatable oral dosage form for dogs.

Animal Safety

Studies with ivermectin indicate that certain dogs of the Collie breed are more sensitive to the effects of ivermectin administered at elevated dose levels (more than 16 times the target use level of 6 mcg/kg) than dogs of other breeds. At elevated doses, sensitive dogs showed adverse reactions which included mydriasis, depression, ataxia, tremors, drooling, paresis, recumbency, excitability, stupor, coma and death. No signs of toxicity were seen at 10 times the recommended dose (27.2 mcg/lb) in sensitive Collies. Results of these studies and bioequivalence studies support the safety of ivermectin products in dogs, including Collies, when used as recommended by the label.

In a target animal safety study, Heartworm Preventative & Intestinal Parasite Treatment Chewable Tablets were administered to 8-week-old Beagle puppies at one, three and five times the maximum recommended dose of 12.5 mcg/kg ivermectin, 10.47 mg/kg pyrantel and 10.47 mg/kg praziquantel. The dogs were treated every 30 days for 6 months. Vomiting within 6 hours of dosing and soft or watery feces within 24 hours of dosing were observed. Other observations during the study were: anogenital swelling, lethargy, head movements, shallow, audible or difficult breathing, and salivation. One dog in the 5X group had tremors and decreased activity. All these signs were transient. No treatment was required. Pathology showed testicular hypoplasia in the 3 and 5X groups (**see Warnings**).

In a laboratory safety study, 12-week-old Beagle puppies receiving 3 and 5 times the recommended dose once weekly for 13 weeks demonstrated a dose-related decrease in testicular maturation compared to controls. In this study, all treated puppies had significantly higher cholesterol levels compared to untreated controls.

In a reproductive safety study, adult males treated at 37.5 mcg/kg ivermectin, 31.4 mg/kg pyrantel and 31.4 mg/kg praziquantel every 14 days during two full spermatogenic cycles (112 days). The quality of semen and reproductive health were not affected by treatment. Treatment-related vomiting and soft feces were reported during this study.

In a study of the effectiveness of Heartworm Preventative & Intestinal Parasite Treatment Chewable Tablets for treatment of *T. canis*, one 8.1 lb, 72-day-old puppy died 6 days after administration of

Heartworm Preventative & Intestinal Parasite Treatment Chewable Tablets at the label dose. This puppy and many of the other puppies in the study had high worms burdens and were reported to have diarrhea, sometimes bloody, frequently before and after treatment with Heartworm Preventative & Intestinal Parasite Treatment Chewable Tablets or the placebo. Dehydration and signs of anemia (pale mucous membranes) were the only abnormal gross necropsy findings observed. No definitive cause of death was determined. In a 90-day field study, the most serious ADEs (lethargy, limpness, and salivation) were seen in dogs weighing less than 10 lbs (**see Precautions**).

Storage Information

Store at controlled room temperature of 59° - 86° F(15° - 30° C). Protect product from light.

How Supplied

Heartworm Preventative & Intestinal Parasite Treatment Chewable Tablets are available in four dosage strengths (see dosage section) for dogs of different weights. Each strength comes in a box of 6 chewable tablets packed 10 boxes per display box.

NADA 141-257, Approved by FDA.

Manufactured by: Virbac Animal Health, Inc. • Fort Worth, TX 76137 USA

Revised 8/10

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PRINCIPAL DISPLAY PANEL - 6.0 to 12 LBS. Carton

VETHICAL®

**Heartworm Preventative
& Intestinal Parasite Treatment
(ivermectin/pyrantel pamoate/praziquantel)**

**CONTAINS 6 CHEWABLE TABLETS
FOR DOGS 6.0 TO 12 LBS.**

Each chewable tablet contains 34 mcg ivermectin,
28.5 mg pyrantel as pamoate salt and 28.5 mg praziquantel.

Administer once a month to prevent
heartworm disease and to treat and
control roundworm, hookworm and
tapeworm infections in dogs.

CAUTION: Federal (U.S.A.) law restricts this drug
to use by or on the order of a licensed veterinarian.

WARNING: For use in dogs only. Keep this and all drugs out of reach of children.
See package insert for complete product safety information.

NADA 141-257, Approved by FDA

Heartworm Preventative & Intestinal Parasite Treatment

(ivermectin/pyrantel pamoate/praziquantel)

**CONTAINS 6 CHEWABLE TABLETS
FOR DOGS 12.1 TO 25 LBS.**

Each chewable tablet contains 68 mcg ivermectin,
57 mg pyrantel as pamoate salt and 57 mg praziquantel.

Administer once a month to prevent
heartworm disease and to treat and
control roundworm, hookworm and
tapeworm infections in dogs.

CAUTION: Federal (U.S.A.) law restricts this drug
to use by or on the order of a licensed veterinarian.

WARNING: For use in dogs only. Keep this and all drugs out of reach of children.
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NADA 141-257, Approved by FDA

(ivermectin/pyrantel pamoate/praziquantel)

**CONTAINS 6 CHEWABLE TABLETS
FOR DOGS 25.1 TO 50 LBS.**

Each chewable tablet contains 136 mcg ivermectin,
114 mg pyrantel as pamoate salt and 114 mg praziquantel.

Administer once a month to prevent
heartworm disease and to treat and
control roundworm, hookworm and
tapeworm infections in dogs.

CAUTION: Federal (U.S.A.) law restricts this drug
to use by or on the order of a licensed veterinarian.

WARNING: For use in dogs only. Keep this and all drugs out of reach of children.
See package insert for complete product safety information.

NADA 141-257, Approved by FDA



**Heartworm Preventative
& Intestinal Parasite Treatment**
(ivermectin/pyrantel pamoate/praziquantel)
Chewable Tablets for Dogs 25.1 to 50 lbs.

9
CONTAINS
6 CHEWABLE TABLETS

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For technical assistance or report adverse drug reactions, please call 866-337-5009. For complete product information, see package insert.

Manufactured by Virbac AH Inc.
Fort Worth, TX 76137 USA

Heartworm Preventative & Intestinal Parasite Treatment (ivermectin/pyrantel pamoate/praziquantel)

Chewable Tablets
for Dogs 25.1 to 50 lbs.

VETHICAL®

VETHICAL®

**Heartworm Preventative
& Intestinal Parasite Treatment**
(ivermectin/pyrantel pamoate/praziquantel)

**CONTAINS 6 CHEWABLE TABLETS
FOR DOGS 25.1 TO 50 LBS.**

Each chewable tablet contains 136 mcg ivermectin, 114 mg pyrantel as pamoate salt and 114 mg praziquantel.

Administer once a month to prevent heartworm disease and to treat and control roundworm, hookworm and tapeworm infections in dogs.

CAUTION: Federal (U.S.A.) law restricts this drug to use by or on the order of a licensed veterinarian.

WARNING: For use in dogs only. Keep this and all drugs out of reach of children. See package insert for complete product safety information.

NADA 141-257, Approved by FDA

WARNINGS: Use product on or before its expiration date.
Discard or return unused tablets.
LOT & EXP

Heartworm Preventative
& Intestinal Parasite Treatment
(ivermectin/pyrantel pamoate/praziquantel)

Heartworm Preventative & Intestinal Parasite Treatment (ivermectin/pyrantel pamoate/praziquantel)

Chewable Tablets
for Dogs 25.1 to 50 lbs.

VETHICAL®

Heartworm Preventative & Intestinal Parasite Treatment (ivermectin/pyrantel pamoate/praziquantel)

**CONTAINS 6 CHEWABLE TABLETS
FOR DOGS 50.1 TO 100 LBS.**

Each chewable tablet contains 272 mcg ivermectin,
228 mg pyrantel as pamoate salt and 228 mg praziquantel.

Administer once a month to prevent
heartworm disease and to treat and
control roundworm, hookworm and
tapeworm infections in dogs.

CAUTION: Federal (U.S.A.) law restricts this drug
to use by or on the order of a licensed veterinarian.

WARNING: For use in dogs only. Keep this and all drugs out of reach of children.
See package insert for complete product safety information.

NADA 141-257, Approved by FDA

Product Information

Product Type	PRESCRIPTION ANIMAL DRUG	Item Code (Source)	NDC:51311-802	
Route of Administration	ORAL	DEA Schedule		
Active Ingredient/Active Moiety				
Ingredient Name		Basis of Strength	Strength	
ivermectin (UNII: 8883YP2R6D) (ivermectin - UNII:8883YP2R6D)		ivermectin	34 ug	
Pyrantel Pamoate (UNII: 81BK194Z5M) (Pyrantel - UNII:4QIH0N49E7)		Pyrantel Pamoate	28.5 mg	
Praziquantel (UNII: 6490C9U457) (Praziquantel - UNII:6490C9U457)		Praziquantel	28.5 mg	
Product Characteristics				
Color	BROWN (Beige speckled)	Score	no score	
Shape	ROUND	Size	10mm	
Flavor		Imprint Code		
Contains				
Packaging				
#	Item Code	Package Description	Marketing Start Date	Marketing End Date
1	NDC:51311-802-06	1 in 1 CARTON		
1		6 in 1 BLISTER PACK		
Marketing Information				
Marketing Category	Application Number or Monograph Citation	Marketing Start Date	Marketing End Date	
NADA	NADA141257	11/12/2010		

HEARTWORM PREVENTATIVE AND INTESTINAL PARASITE TREATMENT			
ivermectin, pyrantel pamoate, and praziquantel tablet, chewable			
Product Information			
Product Type	PRESCRIPTION ANIMAL DRUG	Item Code (Source)	NDC:51311-804
Route of Administration	ORAL	DEA Schedule	
Active Ingredient/Active Moiety			
Ingredient Name		Basis of Strength	Strength
ivermectin (UNII: 8883YP2R6D) (ivermectin - UNII:8883YP2R6D)		ivermectin	68 ug
Pyrantel Pamoate (UNII: 81BK194Z5M) (Pyrantel - UNII:4QIH0N49E7)		Pyrantel Pamoate	57 mg
Praziquantel (UNII: 6490C9U457) (Praziquantel - UNII:6490C9U457)		Praziquantel	57 mg
Product Characteristics			
Color	BROWN (Beige speckled)	Score	no score

Shape	ROUND		Size	11mm
Flavor			Imprint Code	
Contains				
Packaging				
#	Item Code	Package Description	Marketing Start Date	Marketing End Date
1	NDC:51311-804-06	1 in 1 CARTON		
1		6 in 1 BLISTER PACK		
Marketing Information				
Marketing Category	Application Number or Monograph Citation		Marketing Start Date	Marketing End Date
NADA	NADA141257		11/12/20 10	

HEARTWORM PREVENTATIVE AND INTESTINAL PARASITE TREATMENT				
ivermectin, pyrantel pamoate, and praziquantel tablet, chewable				
Product Information				
Product Type		PREScription ANIMAL DRUG	Item Code (Source)	
Route of Administration		ORAL	DEA Schedule	
Active Ingredient/Active Moiety				
Ingredient Name			Basis of Strength	
Strength				
ivermectin (UNII: 8883YP2R6D) (ivermectin - UNII:8883YP2R6D)			ivermectin	
Pyrantel Pamoate (UNII: 81BK194Z5M) (Pyrantel - UNII:4QIH0N49E7)			Pyrantel Pamoate	
Praziquantel (UNII: 6490C9U457) (Praziquantel - UNII:6490C9U457)			Praziquantel	
Product Characteristics				
Color		BROWN (Beige speckled)		Score
Shape		ROUND		Size
Flavor				Imprint Code
Contains				
Packaging				
#	Item Code	Package Description	Marketing Start Date	Marketing End Date
1	NDC:51311-806-06	1 in 1 CARTON		
1		6 in 1 BLISTER PACK		
Marketing Information				
Marketing Category		Application Number or Monograph Citation	Marketing Start Date	Marketing End Date

NADA	NADA141257	11/12/2010	
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HEARTWORM PREVENTATIVE AND INTESTINAL PARASITE TREATMENT

ivermectin, pyrantel pamoate, and praziquantel tablet, chewable

Product Information

Product Type	PRESCRIPTION ANIMAL DRUG	Item Code (Source)	NDC:51311-808
Route of Administration	ORAL	DEA Schedule	

Active Ingredient/Active Moiety

Ingredient Name	Basis of Strength	Strength
ivermectin (UNII: 8883YP2R6D) (ivermectin - UNII:8883YP2R6D)	ivermectin	272 ug
Pyrantel Pamoate (UNII: 81BK194Z5M) (Pyrantel - UNII:4QIH0N49E7)	Pyrantel Pamoate	228 mg
Praziquantel (UNII: 6490C9U457) (Praziquantel - UNII:6490C9U457)	Praziquantel	228 mg

Product Characteristics

Color	BROWN (Beige speckled)	Score	no score
Shape	ROUND	Size	19mm
Flavor		Imprint Code	
Contains			

Packaging

#	Item Code	Package Description	Marketing Start Date	Marketing End Date
1	NDC:51311-808-06	1 in 1 CARTON		
1		6 in 1 BLISTER PACK		

Marketing Information

Marketing Category	Application Number or Monograph Citation	Marketing Start Date	Marketing End Date
NADA	NADA141257	11/12/2010	

Labeler - Virbac AH, Inc. (131568396)

Establishment

Name	Address	ID/FEI	Business Operations
Virbac Bridgeton		808558100	MANUFACTURE